

# SUBJECT INDEX

Vol. 122A, Nos. 1-4

- A-band length, 139
- Acanthocephala, 375
- Acclimation, 163
- Accumulation, 421
- Acid-base, 309
- Acid-base balance, 445
- Action potential, 235
- Active EPA-30, 283
- Adenine nucleotide, 363
- Albumin, 407
- Alpha ( $\alpha$ )-linolenic acid, 213
- Amino acids, 199, 421
- Ammonia, 429
- Ammonia excretion, 445
- Amphibians, 457
- Amphibian skin, 109
- ANCOVA, 37
- Anodonta, 337
- Anterior byssal retractor muscle, 347
- Antibacterial activity, 181
- Apis mellifera*, 227
- Aplysia*, 221
- Arthropod, 65
- Arthropod muscle myofibril, 139
- Arthropods, 267
- Arthropod skeletal muscle, 139
- Artificial diet, 191
- ATP, 173, 299, 363
- Atrial muscle, 235
- Aurelia aurita*, 261
- Background illumination, 99
- Background texture, 99
- Bacteria, 181
- Behavior, 457
- Bicarbonate, 323
- Bilayers, 13
- Biomembrane permeability, 45
- Biomphalaria glabrata*, 421
- Bivalve, 163, 199
- Bivalves, 337
- Blattella germanica*, 415
- Blood, 341
- Body color, 415
- Body size, 37
- Body water composition, 415
- Borage oil, 213
- Bradycardia, 291
- Bufo paracnemis*, 457
- Buthus indicus*, 65
- $Ca^{2+}$ , 109
- Calcium, 75, 117, 173, 277
- CAMP, 109
- Capillaries, 399
- Carbon dioxide production, 323
- Carnitine palmitoyltransferase, 407
- Carotenoid, 75
- Catch state, 347
- Catecholamine, 363
- $Ca^{2+}$  transport, 45
- Cattle, 127
- Cauloside C, 45
- Cell marker, 255
- Cell proliferation, 45
- Central nervous system, 457
- Cerambycidae, 191
- Chelicerata, 65
- Chick embryo, 255
- Chilling, 309
- Chloride conductance, 109
- Chloride secretion, 93
- Cholecalciferol, 117
- Cholesterol, 213
- Chondrocytes, 13
- Chromaffin cell, 363
- Chromatin, 145
- Chrysemys picta bellii*, 173
- Chymotrypsin, 109
- Citrate synthase, 407
- Cnidaria, 261
- Coral, 85
- Corpora cardiaca, 191
- Corticosterone, 385
- Crabs, 429
- Creatine phosphate, 173
- Crustacea, 65
- Crustacea depth regulation, 13
- Cutaneous  $O_2$  uptake, 207
- Cuticular permeability, 415
- Cysteine protease, 331
- Cytochrome oxidase, 407
- Cytotoxicity, 45
- Desiccation, 415
- Detergent, 181
- Development, 53
- Discrimination curve, 99
- Dog cockle (*Glycymeris glycymeris*), 241
- Double-muscling, 127
- Ectotherms, 457
- Electrochemical detector, 363
- Embryo, 75
- Embryo culture, 255
- Emersion, 299
- Endothelia, 13
- Energy, 75
- Environment, 163
- Epinephrine, 109
- Epithelium, 93, 221
- Estradiol, 85
- Estrone, 85
- Fat body glycogen, 191
- Fat deposition, 127
- Fatty acids, 75, 241, 355
- Fatty acid synthase, 385
- Fatty tissues, 127
- Feral honeybees, 227
- Fick principle, 207
- Ficoll, 255
- Fish, 117, 181
- Flight, 385
- FMRamide, 267
- Force, 173
- Forced submergence, 291
- Free fatty acids, 407
- Freeze-drying, 145
- Freeze-thawing, 145
- Freshwater, 163
- Freshwater ion regulation, 445
- Freshwater snails, 421
- Frog, 99
- Fundulus heteroclitus*, 445
- GABA, 267
- Gametogenesis, 85
- Gamma ( $\gamma$ )-linolenic acid, 213
- Gastropod, 199
- Genetic strains, 415
- Gill, 163
- Gill ventilation, 207
- Glycogen, 299
- Glycosides, 45
- Green sunfish, 375
- Growth, 157
- GTP-binding protein, 369
- Guinea pig, 235
- Gut, 221
- Haemocyanin, 309
- Haemolymph lipids, 191
- Haemolymph trehalose, 191
- Hawaii, 85
- Hematocrit, 341
- Hemocyanin, 65
- Hemoglobin anemia, 341
- Hemolymph amino acids, 227
- Hemolymph proteins, 227
- HMG-CoA reductase, 213
- Horseshoe crab striated muscle, 139
- Hypercapnia, 173
- Hypertension, 399
- Hypothermia, 457
- Hypoxia, 207, 291
- I-band length, 139
- Immobility, 291
- Immunocytochemistry, 261, 267
- Immunomagnetic cell sorting, 255
- IMP, 299
- Intestinal physiology, 375
- Intracellular pH, 173
- Invertebrate, 85, 221
- Ion channels, 181
- Ion regulation, 429
- Ions, 163, 199
- Ipsilateral pathway, 99
- Jasus*, 299, 309
- Killifish, 445
- Kinetics, 277
- $K^+$ -release, 45
- Lactate, 173, 457
- Lamb, 277
- L929 cells, 145
- Lepomis cyanellus*, 375
- Leptorhynchoides thecatus*, 375
- Lethal concentrations, 429
- Lipid, 75
- Lipid extraction, 415
- Lipogenesis, 385
- Lipolysis, 385
- Lipoprotein lipase, 385
- L-Lactate, 299, 309

## Subject Index

- Load-bearing system, 347
- Lobster, 299, 309
- Luciferin-luciferase, 363
- Lymph heart cessation, 291
- Lymph heart rate, 291
- MAB QCR1, 255
- Magiciada sepiendecim, 355
- Magnesium, 117
- Marine bivalves, 241
- Marine mammals, 157
- Mechano activation, 13
- Mechano transduction, 13
- Metabolism, 75, 157, 457
- Microhabitat specificity, 375
- Microtus*, 437
- Migration, 385
- Migratory restlessness, 385
- Migratory type, 53
- Mollusc, 199, 221
- Molluscan catch muscle, 347
- Morimus funereus*, 191
- Motor neuron, 53
- Movement direction, 99
- Moving bars, 99
- MRNA, 213
- Mummichog, 445
- Muscle, 163
- Muscle fiber stiffness, 347
- Muscle strip, 173
- Muscular tissues, 241
- Mustela putorius furo*, 93
- Myogenesis, 53
- Mytilus edulis*, 347
- Na<sup>+</sup> activity, 221
- Na<sup>+</sup> transport, 221
- Natural diet, 191
- Neuroanatomy, 261
- Neuron, 261
- Neuropeptide, 261
- Non muscular tissues, 241
- Notochord, 53
- Nucleoside triphosphates, 341
- Oestrous cycle, 437
- On-line, 363
- Optical recording, 235
- Organic osmolytes, 145
- Orientation, 99
- Osmolality, 227
- Osmoregulation, 199, 429
- Osteocytes, 13
- Ouabain, 337
- Outer mantle epithelium, 337
- Oxygen, 299, 309
- Oxygen affinity, 341
- PeaHTH, 267
- Percentages, 37
- Perfused heart, 173
- Perilla oil, 213
- PH-dependent action, 45
- Phocids, 157
- Phosphate, 173
- Phospholipase C, 369
- Phospholipid metabolism, 283
- Phospholipids, 355
- Phosphorus, 117
- Photoreceptor, 369
- Physiology, 385
- Pinnipeds, 157
- Platelets, 13
- Polyp, 261
- Pregnancy, 437
- Primordial germ cells, 255
- Proctolin, 267
- Progesterone, 437
- Protease, 369
- Protease inhibition, 331
- Protein, 181
- Purification, 181
- Pyloric caeca, 375
- Quail embryo, 255
- Radio-isotope, 323
- Rainbow trout, 117
- Ramp release, 347
- Rat, 213
- Ratios, 37
- Red cell organic phosphates, 341
- Reproduction, 437
- Reproductive cycle, 241
- Reptile, 341
- RFamide, 261
- Salinity, 429
- Scaling, 37
- Scleractinia, 85
- Scorpion, 65
- Scyphistomae, 261
- Scyphozoan, 261
- Seasonal variations, 241
- Series elastic component, 139
- Serine protease, 331
- Sheep, 323
- Shipping, 299, 309
- Short-circuit current, 337
- Simultaneous measurement, 363
- Sinusoidal vibration, 347
- Size-adjustments, 37
- Skin blood flow, 399
- Skin mucus, 181
- Sodium pump, 337
- Somite, 53
- Spectroscopic properties, 65
- Spider, 267
- Spinal cord section, 291
- Spinal neurones, 291
- Spontaneously Hypertensive rat, 399
- Squid, 369
- Stable-isotope, 323
- Statocyst, 13
- Steroids, 85
- Stimulus velocity, 99
- Strong ion difference, 429
- Subunit, 65
- Supraoesophageal ganglion, 267
- Tachypleus tridentatus*, 139
- Teleost, 445
- Telson depressor muscle, 139
- Temperature, 53, 309, 457
- Temperature tolerance, 227
- Testosterone, 437
- Thermoregulation, 157, 457
- Thyroxine, 157
- Tilapia, 207
- Tissue biochemical parameters, 127
- Tissue culture, 109
- Titin network, 139
- Toads, 291
- Toxicity, 429
- Trace element, 117
- Trachea, 93
- Transport inhibitors, 93
- Triacylglycerols, 355
- Triiodothyronine, 157
- Trout, 53
- Trypsin-receptor, 109
- Turtle, 75, 341
- Uptake metabolism, 421
- Urate, 299, 309
- Urea, 323
- Urea excretion, 445
- Uric acid, 227
- Vaginal smear, 437
- Vanadium ions, 331
- Vision, 369
- Visual system, 99, 267
- Vitamin D, 277
- Vitamin E, 75
- Vitellogenesis, 241
- Vole, 437
- Volume regulation, 199
- Voluntary submergence, 291
- Water balance, 227
- Water loss, 415
- Yolk, 75
- Young and old rats, 283
- Zebra mussel, 163
- Zinc, 117

# AUTHOR INDEX Vol. 122A, Nos. 1-4

- Abbasi, A., 65  
 Abid Ali, S., 65  
 Affanni, J. M., 291  
 Agafonova, I. G., 45  
 Akimoto, T., 139  
 Aminin, D. L., 45  
 Anisimov, M. M., 45  
 Appel, A. G., 415  
 Atkinson, M. J., 85  
 Atkinson, S., 85  
 Atmowidjojo, A. H., 227
- Barrias, C., 337  
 Bas, P., 127  
 Bauchart, D., 127  
 Beauquin, C., 99  
 Becherer, C., 267  
 Boardman, T. J., 37  
 Bolis, G. C., 291  
 Bonner, R. F., 399  
 Bourdouxhe-Housiaux, C., 145  
 Branco, L. G. S., 457  
 Brauner, C. J., 341
- Cerletti, P., 331  
 Cervino, C. O., 291  
 Cohen, A. C., 227  
 Colson, P., 145  
 Crowder, M. A., 93
- da Costa, R., 337  
 Deaton, L. E., 199  
 De Vincentiis, M., 331  
 Dietz, T. H., 163  
 Djordjević, S., 191
- Eaton, P., 421  
 Ebran, N., 181  
 Erickson, E. H., 227
- Ferreira, H. G., 337  
 Finnegan, M. F., 399  
 Finney, D. E., 399  
 Fraser, P. J., 13  
 Fujishiro, N., 235  
 Furuichi, Y., 213
- Gaillard, F., 99  
 Galap, C., 241  
 Geay, Y., 127  
 Genov, N., 65  
 Gerencser, G. A., 93, 221  
 Gilles, R., 145  
 Glass, M. L., 207  
 Gnedoi, S. N., 45  
 Greenwood, M. R. C., 385  
 Grillot, J.-P., 241  
 Guerrieri, N., 331
- Hamm, P. H., 173  
 Healy, J. C., 399  
 Hidioglou, M., 277  
 Hoback, W. W., 355  
 Hocquette, J.-F., 127
- Houssier, C., 145
- Ihara-Watanabe, M., 213  
 Imai, Y., 261  
 Ito, S., 363  
 Ivanović, J., 191  
 Iwamoto, H., 347
- Jackson, D. C., 173  
 Jenssen, B. M., 157  
 Johnston, I. A., 53  
 Jordan, P. J., 199  
 Julien, S., 181
- Kalinin, A. L., 207  
 Kasai, Y., 363  
 Katz, U., 109  
 Kawata, H., 235  
 Kern, R. E., 235  
 Killeen, J. R., 53  
 Kitamura, N., 363  
 Kito, Y., 369  
 Kornette, K. M., 221  
 Koskela, J., 117  
 Kotkat, H. M., 283
- Lall, S. P., 117  
 Lawler, R. G., 173  
 Leboulenger, F., 241  
 Lemaître, C., 181  
 Lind, A., 399  
 Lobley, G. E., 323  
 Loo, S. Y., 221  
 Loughlin, G. M., 93
- Macdonald, A. G., 13  
 Machida, Y., 255  
 Marcos, H. A., 291  
 Mattila, P., 117  
 McCartney, R. J., 75  
 McLay, H. A., 53  
 Medler, S., 163  
 Milliken, B. K., 399  
 Milsom, W. K., 341  
 Molle, G., 181  
 Monserrat, J. M., 429  
 Morris, S., 299, 309
- Nagai, K., 369  
 Nagel, W., 109  
 Nakazato, Y., 363  
 Narita, K., 369  
 Nemcsok, J., 283  
 Nenadović, V., 191  
 Netchitaïlo, P., 241  
 Nickol, B. B., 375  
 Nieto, R., 323  
 Nikolova Georgieva, D., 65  
 Nomoto, S., 261  
 Nubbemeyer, R., 437
- Ohta, T., 363  
 Oliveira, P. F., 337  
 Oliver, S., 299, 309
- Ono, T., 255  
 Orange, N., 181
- Packard, G. C., 37  
 Patrick, M. L., 445  
 Pisarri, T., 399
- Rady, A. A., 283  
 Raffy, S., 277  
 Ramenofsky, M., 385  
 Ram, L., 323  
 Rana, R. L., 355  
 Rebelo, M. F., 429  
 Rendell, M. S., 399  
 Richardson, D. J., 375  
 Rodnick, K. J., 407  
 Russell, K. J., 75
- Saglio, P., 181  
 Sakaguchi, M., 261  
 Salvati, A., 331  
 Santos, E. A., 429  
 Savard, R., 385  
 Schmid, A., 267  
 Scippa, S., 331  
 Shi, H., 173  
 Shimo, M., 347  
 Shirakawa, I., 347  
 Silverman, H., 163  
 Speake, B. K., 75  
 Stanley, D. W., 355  
 Steiner, A. A., 457  
 Stoeva, S., 65  
 Strigina, L. I., 45  
 Sugi, H., 139, 347  
 Surai, P. F., 75  
 Suzuki, T., 369
- Tadeu Rantin, F., 207  
 Takahashi, T., 213  
 Takai, E., 369  
 Tanley, M. J., 415  
 Tarrant, A. M., 85  
 Terakita, A., 369  
 Thomas, J. D., 421  
 Thompson, C. C., 163  
 Thompson, M. B., 75  
 Toutain, P. L., 277  
 Tsukahara, Y., 369
- Umekawa, H., 213
- Vermorel, M., 127  
 Vielma, J., 117  
 Voelter, W., 65
- Wang, T., 341  
 Wheeler, D. E., 227  
 Williams, S. R., 407  
 Woldstad, S., 157  
 Wood, C. M., 445
- Zhao, X., 277